

MATERIALS

760.40 General.

Impervious soil borrow shall meet the requirements specified in Subsection M1.08.0 of Division III, Materials.

CONSTRUCTION METHODS

760.60 General.

Impervious soil borrow shall be placed and compacted as specified in Subsection 751.60.

COMPENSATION

760.80 Method of Measurement.

Impervious soil borrow shall be measured as specified in Subsection 751.80.

760.81 Basis of Payment.

Impervious soil borrow shall be paid for at the contract unit price per cubic meter under the item for Impervious Soil Borrow, complete in place, even if the impervious soil borrow is obtained from Muck Excavation.

760.82 Payment Items.

760.	Impervious Soil Borrow	Cubic Meter
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SECTION 765

SEEDING

DESCRIPTION

765.20 General.

This work shall consist of seeding certain areas at the locations indicated on the plans or designated by the Engineer, in accordance with these specifications.

MATERIALS

765.40 General.

Materials shall meet the requirements specified in the following Subsections of Division III, Materials:

Limestone	M6.01.0
Fertilizer	M6.02.0
Grass Seed	M6.03.0

CONSTRUCTION METHODS

765.60 General.

The Contractor shall not proceed with the work of seeding until permission of the Engineer has been obtained.

Before the application of limestone, fertilizer and seed, the Contractor shall harrow or roto-till to a depth of 75

millimeters, when directed, all areas where loam or topsoil has been placed under a previous contract when such areas are to be prepared for seeding under this contract. When loam borrow is placed, or topsoil is rehandled and spread, and they are paid for under the respective items of a contract, they will not require harrowing or roto-tilling.

The Contractor shall remove all debris and stones having any dimensions greater than 50 millimeters before the application of limestone, fertilizer and seed.

765.61 Application of Limestone.

Limestone may be applied in dry form or hydraulically as provided in Subsection 765.65. Limestone where necessary shall be spread and thoroughly incorporated in the layer of loam or topsoil to adjust the acidity of the loam or topsoil. The rate of application of the limestone will vary up to a maximum of 0.54 kilogram per square meter depending on the results of laboratory tests conducted by the Department. The limestone shall be thoroughly incorporated into the layer of loam or topsoil and the upper 25 millimeters of the underlying subsoil by harrowing or other methods satisfactory to the Engineer so as to provide a layer of thoroughly mixed material for the seed bed.

765.62 Application of Fertilizer for Grass.

Fertilizer may be applied in dry form or hydraulically as provided in Subsection 765.65.

After the application of limestone, if found necessary, on the seed bed, fertilizer shall be spread on the top layer of loam or topsoil at the rate of 9.0 kilograms per 100 square meters and worked into the seed bed. The full depth of loam or topsoil shall then be spaded or harrowed and graded to the required cross section.

765.63 Seeding Grass.

After the loamed or topsoil areas have been prepared and treated as hereinbefore described, grass seed conforming to the respective formulas hereinbefore specified shall be carefully sown thereon at the rate of approximately 0.55 kilograms per 100 square meters. Seeding shall be done in two directions at right angles to each other. Seeding on level areas and on slopes up to and including 1:4 (1 vertical to 4 horizontal) slopes shall be done by means of an approved seeder that will seed and roll in one operation. On shoulders and other narrow areas, the seeding may be done longitudinally in one application.

765.65 Seeding Grass by Spray Machine.

A hydraulic spray machine, approved by the Engineer, and designed specifically for seed dissemination may be utilized. The application of limestone as necessary, fertilizer and grass seed may be accomplished in one operation by the use of an approved spraying machine. The materials shall be mixed with water in the machine and kept in an agitated state in order that the materials may be uniformly suspended in the water. The spraying equipment shall be so designed that when the solution is sprayed over an area the resulting deposits of limestone, fertilizer and grass seed shall be equal in quantity to those quantities specified above in Subsections 765.61, 765.62 and 765.63.

A certified statement shall be furnished, prior to start of work, to the Engineer by the Contractor as to the number of kilograms of limestone, fertilizer, and grass seed, per 100 liters of water.

This statement should also specify the number of square meters of seeding that can be covered with the solution specified above.

If the results of the spray operation are unsatisfactory, the Contractor will be required to abandon this method and to apply the limestone, fertilizer and seed in accordance with the requirements of Subsections 765.61, 765.62 and 765.63.

765.66 Care During Construction.

The Contractor shall be responsible for the watering of all seeded and grassed areas which shall be kept moist. The Engineer's decision will prevail in the event a dispute develops with the Contractor as to whether or not the seeded and grassed areas are moist. Seeded areas on which growth has started shall be watered to a minimum depth of 50 millimeters to assure continuing growth. Watering shall be done in a manner which will provide uniform coverage, prevent erosion due to application of excessive quantities over small areas, and prevent damage to the finished surface by the watering equipment. The Contractor shall furnish sufficient watering equipment to apply one complete coverage to the seeded areas in an 8 hour period.

If necessary, suitable signs and barricades of brush or other materials shall be placed to protect the seeded areas.

After the grass has appeared, all areas and parts of areas which fail to show a uniform stand of grass, for any reason whatsoever, shall be reseeded and such areas and parts of areas shall be seeded repeatedly until all areas are covered with a satisfactory growth of grass.

The Contractor shall care for all of the seeded areas until the work has been physically accepted, without compensation in addition to the amount regularly to be paid under this item as hereinafter provided. Care shall include all regrading, refertilizing, reseeding and mowing which may be necessary.

Prior to the acceptance of the project the Contractor will be responsible for mowing the grass when necessary on all flat or rolling slopes from level to and including 1:4 (1 vertical to 4 horizontal) slopes to a height of 75 millimeters when the grass has attained a height of 200 millimeters. The grass on all slopes steeper than 1:4 (1 vertical to 4 horizontal) shall be cut when necessary to a height of 75 millimeters at such a time as a stable turf has been established in the Engineer's judgment.

765.67 Liability.

A satisfactory stand of grass, as determined by the Engineer, shall be required. To be acceptable, a stand of grass shall consist of a uniform stand of at least 60 percent established permanent grass species, with a uniform count of at least 100 plants per 0.1 square meter.

When all items of the contract, including the work specified under this item, have been acceptably completed except that a satisfactory stand of grass has not been produced, the contract may be accepted.

COMPENSATION

765.80 Method of Measurement.

The quantity of seeding shall be the number of square meters based on actual measurements made over the general contour of the areas seeded, complete in place, and accepted.

765.81 Basis of Payment.

This work, including all mowing, will be paid for at the contract unit price per square meter under the item for Seeding, complete in place. When a satisfactory stand of grass has not been established at the time of acceptance, no payment for seeding shall be allowed at the time of acceptance. At the time the final estimate is ready to be forwarded to the Contractor the seeded areas will again be inspected by the Engineer and if a satisfactory stand of grass has been established, the seeded areas with a satisfactory stand of grass will be included for payment.

765.82 Payment Items.

765.	Seeding	Square Meter
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SECTION 766

REFERTILIZATION

DESCRIPTION

766.20 General.

This work shall consist of an application of fertilizer to seeded areas as indicated on the plans, or as designated by the Engineer, and in accordance with these specifications.